

CONTENT OF VOLUME 12

COMPUTATIONAL PHYSICS

Issue Page

- | | | |
|---|------|--|
| 1 | vii | Preface. D. Biskamp |
| 1 | viii | Organizing and programme committees. |
| 1 | ix | List of participants. |
| 1 | 1 | The formation of protostars. W. Tscharnuter |
| 1 | 9 | Numerical modelling of pulsar magnetospheres. M. Petravic |
| 1 | 21 | The advance from 2D electrostatic to 3D electromagnetic particle simulation. O. Buneman |
| 1 | 33 | Computation of ideal MHD equilibria. K. Lackner |
| 1 | 45 | Recent developments in the computational aspects of MHD stability. R.C. Grimm, J.L. Johnson |
| 1 | 53 | Non-linear behaviour of hydromagnetic instabilities. J.A. Wesson |
| 1 | 67 | Numerical solution of continuity equations. J.P. Boris |
| 1 | 81 | Symbolic computation of nonlinear wave interactions on MACSYMA. A. Bers, J.L. Kulp, C.F.F. Karney |
| 1 | 99 | Finite difference and finite element methods. K.W. Morton |
| 1 | 109 | Computation of Tokamak transport. C. Mercier, J.P. Boujot, F. Werkoff |
| 1 | 121 | Convection in stars. E. Graham |
| 2 | 125 | Double Chebyshev expansions for wave functions. V.B. Sheorey |
| 2 | 135 | Finite element approximation for the wave-particle interaction in weakly turbulent plasmas. K. Appert, T.M. Tran, J. Vaclavik |
| 2 | 145 | Comment on the use of FORMAC73 in general relativity. A.D. Payne |
| 2 | 259 | Announcement: second summer school on computational physics. |
| 3 | 261 | The calculation of eigenvalues and eigenfunctions in an asymptotically Coulomb potential. I.H. Aldeen, A.C. Allison, M.J. Jamieson |
| 3 | 267 | Computer analysis of experimental results on differential scattering of electrons by gases. R.Ch. Baas, R.H.J. Jansen |

COMPUTER PROGRAMS IN PHYSICS

Issue Page

- | | | |
|---|-----|--|
| 2 | 147 | FOURGEN: a fast Fourier transform program generator. J.A. Maruhn |
| 2 | 163 | Sequential random integer generator. C.T.K. Kuo, T.W. Cadman, R.J. Arsenault |
| 2 | 173 | Algorithms for the Kac and Renyi tests. J.M.F. Chamayou |
| 2 | 179 | Coulomb coefficients for complex ionic crystals. D.C. Sutherland, W.G. Ferrier |

COMPUTER PROGRAMS IN PHYSICS (cont.)*Issue Page*

- 2 199 Multistate molecular treatment of atomic collisions in the impact parameter approximation. III — Integration of coupled equations and calculation of transition amplitudes for Coulomb trajectories. R.D. Piacentini, A. Salin
- 2 205 COLLRAD: a code for calculating the quasi—steady state population densities of excited states of hydrogen—like ions. G.J. Tallents
- 2 213 GLOWCODE: a one—dimensional code for the simulation of plasma afterglows. J.W. Long, A.A. Newton, M.C. Sexton
- 2 231 Calculation of the energy response of a spectrometer. J. Lotrian, M. Leriche, J. Cariou
- 2 237 PIPIT: a momentum space optical potential code for pions. R.A. Eisenstein, F. Tabakin
- 3 277 A program for calculating the observables for single—particle—inclusive production reactions. K.J.M. Moriarty, J.H. Tabor
- 3 293 Exact—finite—range microscopic calculations for heavy—ion induced two—nucleon transfer reactions. D.H. Feng, B.T. Kim, T. Udagawa, T. Tamura, K.S. Low
- 3 305 A program for the calculation of the positions of X—ray powder reflections. I.F. Ferguson, R.S. Fox, T.E. Hughes
- 3 323 PULSAMP: a program to predict the amplification of nano—second CO₂ laser light pulses. S.A. Roberts, K. Smith
- 3 335 Adaptation of a program for depth distribution of energy deposition by ion bombardment: calculation of ion lateral ranges. I. Manning, M. Rosen, J.E. Westmoreland
- 3 339 Erratum notice. Depth distribution of energy deposition by ion bombardment. I. Manning, G.P. Mueller